

AMENDMENTS TO THE CLAIMS:

The listing of claims will replace all prior versions, and listings of claims in the application:

LISTING OF THE CLAIMS

1. (Currently Amended) A gray scale column driver for a thick an alternating current dielectric electroluminescent display, comprising:

a counter receiving video signal gray level data from an incoming video signal and in response counting for a time interval proportional to said gray level data; and

a non linear analogue voltage ramp generator connected to said counter, said non linear analogue voltage ramp generator outputting a ramping voltage for application to that is used during driving of columns of said dielectric electroluminescent display during said time interval, wherein said ramping voltage, between its start and peak, conforms to a curve having an inverted s-shape, with an initial convex portion followed by a concave portion so as to compensate for luminance versus voltage characteristics of said thick dielectric electroluminescent display, wherein said initial convex portion conforms to a negative second derivative with respect to said time interval, and said concave portion conforms to a positive second derivative with respect to said time interval, said ramping voltage determining the maximum voltage of alternating polarity driving pulses applied to the columns of said dielectric electroluminescent display.

2. Cancelled

3. (Currently Amended) The gray scale column driver of claim 1, wherein said counter is an 8-bit counter for delineating said time interval to fully define 256 gray levels.

4. (Currently Amended) The gray scale column driver of claim 1, wherein said ramping voltage, for a negative row voltage applied to said dielectric electroluminescent display,

is $V_{g\ neg}(t_m - t)$ expressed as a function of the difference between the time t_m for the ramping voltage to reach a maximum luminance voltage value V_m at the end of said time interval, and wherein said ramping voltage, for a positive row voltage applied to said dielectric electroluminescent display, is $V_{g\ pos}(t)$, where $V_{g\ pos}(t) = V_m - V_{g\ neg}(t_m - t)$ and said gray level data is converted to complement valves.

5. (Currently Amended) The gray scale column driver of claim 4, wherein said non linear analogue voltage ramp generator further comprises an integrator circuit and at least two current sources generating and applying different currents to said integrator circuit such that when a first one of said current sources is connected to said integrator circuit a first segment said convex portion of said ramping voltage is generated, when both of said current sources are connected in parallel to said integrator circuit a second segment a transition portion of said ramping voltage between said convex portion and said concave portion is generated, and when the a second one of said current sources is connected to said integrator circuit a final segment said concave portion of said ramping voltage is generated.
6. (Previously Presented) The gray scale column driver of claim 5, wherein said first one of said current sources generates a current that decreases during said time interval, and said second one of said current sources generates a current that increases during said time interval.
7. (Previously Presented) The gray scale column driver of claim 5, wherein said at least two current sources are time-dependent voltage feedback controlled current sources.
8. (Withdrawn) The gray scale column driver of claim 5, wherein said at least two current sources are constant current sources.

9. (Currently Amended) The gray scale column driver of claim 5, wherein said non linear analogue voltage ramp generator further comprises a threshold control circuit for controlled switching between said two of said at least two current sources.

10. (Currently Amended) The gray scale column driver of claim 5, wherein said non linear analogue voltage ramp generator further comprises a frame polarity control circuit selecting between said ramping voltage for [[a]] said positive row voltage and said ramping voltage for [[a]] said negative row voltage.

11. (Currently Amended) The gray scale column driver of claim 5, wherein said at least two current sources further include control inputs controlling curvature the shape of said first and second segments convex and concave portions respectively.

12. (Currently Amended) The gray scale column driver of claim 9, wherein said threshold control circuit further includes a control input setting a transition voltage between said first and second segments convex and concave of said ramping voltage.

13. Cancelled

14. Cancelled

15. Cancelled